Case 3360

The ichnogenus *Coprinisphaera* Sauer, 1955 (Ichnotaxa, Insecta, Coleoptera, COPRINISPHAERIDAE): proposed conservation

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the universally accepted name *Coprinisphaera* Sauer, 1955 for an ichnogenus attributed to dung-beetle brood balls (ichnofamily COPRINISPHAERIDAE). This name is threatened by a rarely used senior subjective synonym *Fontanai* Roselli, 1939. It is proposed that the name *Coprinisphaera* is conserved by suppression of *Fontanai*.

Keywords. Nomenclature; taxonomy; ichnofossils; COPRINISPHAERIDAE; *Coprinisphaera*; *Fontanai*; *Coprinisphaera ecuadoriensis*; dung-beetle brood balls; Ecuador; Uruguay; Eocene–Holocene.

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1. Roselli (1939, p. 79) established the ichnogenus *Fontanai* for the single ichnospecies *Fontanai kraglievichi*, an insect trace fossil from paleosols in the Paleogene Asencio Formation of Uruguay. The second mention of this ichnogenus was made 37 years later by Roselli (1976, p. 167), who proposed to replace *Fontanai* with *Fontanaichnus*, which would be a junior objective synonym.

2. Since 1939, *Fontanai* and *Fontanaichnus* have been cited at least twelve times (see Genise, 2004), for the most part only in lists without any other treatment. The limited recognition of the significance of Roselli's highly original contribution until recent years, the doubtful affinities of the trace fossil and the lack of an ichnotaxonomic revision of dung-beetle fossil brood balls before Genise (2004) and Laza (2006) all contributed to the lack of recognition of the name *Fontanai*.

3. Sauer (1955, p. 123) established the ichnogenus *Coprinisphaera*, including in it the single ichnospecies *Coprinisphaera ecuadoriensis* for a fossil dung-beetle brood ball from the Pleistocene of Ecuador, probably in ignorance of the earlier contribution by Roselli. Other researchers later discovered examples from paleosols of widely separated ages and localities. The name *Coprinisphaera* was subsequently used by

many workers including Sauer (1956, 1959), Häntzschel (1962, 1975), Martínez (1982), Retallack (1990, 2001), Genise (1993, 1999, 2004), Donovan (1994), Johnston et al. (1996), Buatois et al. (1998, 2002), Krell (2000), Bellosi et al. (2001), De (2002), Mikuláš & Genise (2003), Bellosi (2004), Bellosi & Genise (2004), McIlroy (2004), and Genise et al. (2004).

4. Since its establishment, *Coprinisphaera* has been used as a valid name by more than ten authors in 25 works during the past 50 years, which meets the requirements of Article 23.9.1.2 of the Code. In addition, it was included in both editions of the trace-fossil section of the *Treatise on Invertebrate Paleontology* (Häntzschel, 1962, 1975), and its ichnological importance is reflected in its selection as a name of the *Coprinisphaera* ichnofacies (Genise et al., 2000) and as type ichnogenus of one of the few ichnofamilies to be formally defined: the ichnofamily COPRINISPHAERIDAE Genise, 2004. The ichnogenus *Coprinisphaera* is currently accepted by all researchers as the valid name for the ichnotaxon comprising dung-beetle fossil brood balls.

5. Laza (in press), reviewing the ichnogenus *Coprinisphaera*, noted that the little used name *Fontanai* is a senior subjective synonym of *Coprinisphaera*. In accordance with the recommendation of Article 82 with regard to ongoing ichnogeneric revisions, he used the name *Coprinisphaera* in anticipation of the ruling of the Commission.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power to suppress the generic name *Fontanai* Roselli, 1939 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Coprinisphaera* Sauer, 1955 (gender: feminine), type ichnospecies by monotypy *Coprinisphaera ecuadoriensis* Sauer, 1955;

(3) to place on the Official List of Specific Names in Zoology the name *ecuadoriensis* Sauer, 1955, as published in the binomen *Coprinisphaera ecuadoriensis* (specific name of the type ichnospecies of *Coprinisphaera* Sauer, 1955);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:

(a) *Fontanai* Roselli, 1939, as suppressed in (1) above;

(b) *Fontanaichnus* Roselli, 1976 (a junior objective synonym of *Fontanai* Roselli, 1939).

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